

L 41800-65 REC-4/EWT(1)/EEC(t)/FCS(k)/I P1-4/PJ-4/P1-4/Pac-4 WR  
 ACCESSION NR: AR4039104 S/O274/64/000/003/A048/A048 43

SOURCE: Ref. Zh. Radiotekhnika i elektrosvyaz', Abs. 3A267

AUTHOR: Veselkov, I. A.; Grishko, V. N.

TITLE: Physical interpretation of the process of stabilization of the current phase in a transmitter antenna by means of a complex feedback

CITED SOURCE: Tr. Tomskogo in-ta radioelektron. i elektron. tekhn., v. 1, 1963, 24-26

TOPIC TAGS: antenna, radio transmitter

TRANSLATION: The process of stabilization of the current phase in a long-wave-transmitter antenna is considered, and a vector diagram is constructed. The case is analyzed when the output stage of the transmitter operates under supercritical conditions. The principle of stabilization by the complex feedback consists of controlling the input-voltage phase which, in turn, determines the antenna-current phase. Three illustrations. Bibliography: 2 titles. 25B

SUB CODE: EO

ENCL: 00

Card 1/1 CC

ACCESSION NR: AR4032183

assumed that the output stage of the transmitter, in which the main voltage and the feedback voltage are summed, operates in the over-voltage mode. This makes it possible to regard the feedback-voltage vector and the operating conditions of the final stage as remaining constant during the transient. It is shown that antenna current phase stabilization with the aid of complex feedback is based on controlling the phase of the input voltage, which, in turn, establishes the phase of the antenna current. V. Medvedev.

DATE ACQ: 31Mar64

SUB CODE: GE, SD

ENCL: 00

Card 2/2

ACCESSION NR: AR4032183

S/0058/64/000/002/H025/H025

SOURCE: Ref. zh. Fiz., Abs. 2Zh152

AUTHORS: Veselkov, I. A.; Grishko, V. N.

TITLE: Physical interpretation of the process of stabilization of antenna current with the aid of complex feedback

CITED SOURCE: Tr. Tomskogo in-ta radioelektron. i elektron. tekhn., v. 1, 1963, 24-26

TOPIC TAGS: antenna current stabilization, antenna current phase stabilization, complex feedback stabilization, overdriven transmitter, transient performance

TRANSLATION: A geometrical interpretation is considered for transmitter-antenna current phase stabilization with the aid of complex feedback. The analysis is made with the aid of vector diagrams. It is

Card 1/2

L. 33322-66

ACC NR: AP6021782

of two equal cores each having half the total number of windings in each transistor collector and base circuits. Each half winding in the collector circuits is connected in series, and in parallel in the base circuits. Each core is wound with a common control and bias winding. This configuration permits the repetition frequency of the multivibrator pulses to be variable while the shape of the pulses remains undistorted (see Fig. 1). Orig. art. has: 1 figure. [BD]

SUB CODE: 09/ SUBM DATE: 05Apr65/ ATD PRESS: 5026

Card

2/2 JCR

L 33322-66 EWT(1)  
ACC NR: AP6021782

SOURCE CODE: UR/0413/66/000/012/0048/0048

INVENTOR: Shcherban', A. N.; Furman, N. I.; Grishko, V. G.

ORG: none

TITLE: Ferro-transistor multivibrator. Class 21, No. 182765

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 48

TOPIC TAGS: pulse oscillator, multivibrator

ABSTRACT: The Author Certificate has been issued for a multivibrator design using two transistors whose bases are magnetically coupled. The magnetic circuit consists

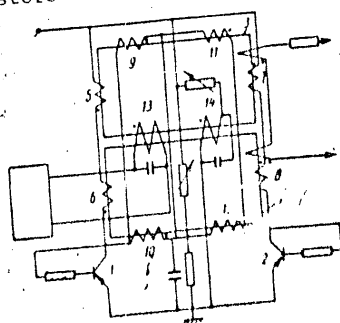


Fig. 1. Multivibrator circuit

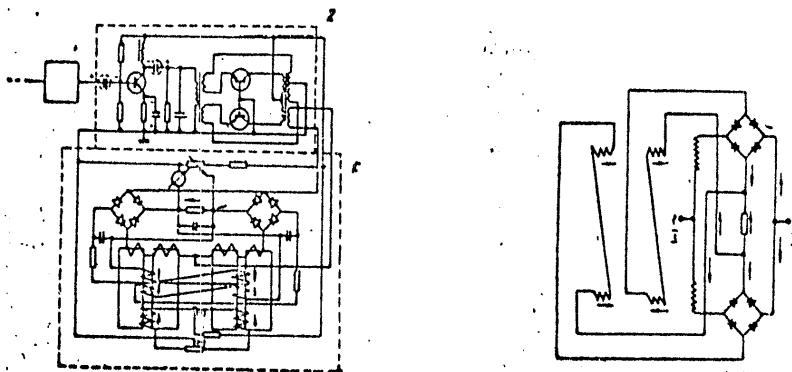
1,2 - Transistors; 3,4 - cores; 5,6,7,8 - collector split windings; 9,10,11,12 - base split windings; 13 - control winding; 14 - bias winding.

UDC: 621.373.52

Card 1/2

ACC NR: AP7009071

the signal to be measured. The other ends of the feedback windings are connected to the positive output of the bridge rectifiers for right and left cycles respectively, and interconnected through a resistor. The feedback windings for right and left cycles are connected in opposition.



1--magnetic amplifier; 2--square pulse generator

SUB CODE: 09/ SUBM DATE: 22Jul64

Card 2/2

ACC NR: AP7009071

SOURCE CODE: UR/0413/67/000/003/0047/0047

INVENTOR: Furman, N. I.; Sheherban', A. N.; Grishko, V. G.; Primak, A. V.;  
Belogolovin, N. S.; Chopovskiy, Yu. I.

ORG: None

TITLE: A frequency meter for telemetry. Class 21, No. 190968

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1967, 47

TOPIC TAGS: telemetry, frequency meter, magnetic amplifier, positive feedback,  
electronic feedback

ABSTRACT: This Author's Certificate introduces: 1. A frequency meter for telemetry. The unit is based on the mutual effect of two magnetic fluxes in a magamp: the variable flux produced by a sinusoidal AC input signal and a constant flux produced by current from an independent power supply with bridge rectifiers. To increase accuracy and make provision for monitoring the operation of the transmission channel, the installation contains a square pulse buffer generator with a natural frequency below the "zero" frequency of the signals being transmitted. The generator input is connected to the transmission channel through a synchronizing stage, while the output is connected to the AC winding of the magamp. 2. A modification of this frequency meter with automatic temperature compensation. One end of each of the two circuits of the external positive feedback windings in the magnetic amplifier is connected to the negative output of the bridge rectifiers for left and right cycles respectively tied into the AC circuit of

Card 1/2

UDC: 621.317.761:621.398

ACC NR: AP7004652 (A, N) SOURCE CODE: UR/0432/66/000/001/0018/0020  
(Academician)

AUTHOR: Shcherban', A. N.; Furman, N. I. (Candidate of technical sciences);  
Grishko, V. G.; Belogolovin, N. S.

ORG: none

TITLE: Telemetric frequency meter with increased sensitivity

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 1, 1966, 18-20

TOPIC TAGS: frequency meter, telemetry equipment, transistorized circuit

ABSTRACT: A frequency meter, originally designed for use as a receiver of telemetric signals when measuring methane concentration in mines, is described. The transistorized meter circuitry consists of an input voltage converter and a capacitive pulse shaper. The converter includes a two-stage pre-amplifier and a magnetic multivibrator. The pre-amplifier synchronizes the multivibrator with the received frequency. The pulse shaper is a full-wave bridge rectifier consisting of two capacitors and four diodes. Some of the meter parameters are: operating frequency, 2—3 kc; minimum input signal amplitude, 10 mv; output power, 3 mw; supply voltage, 15 v; maximum measurement error, 15%; and temperature characteristics, flat from 5—50C. The meter, developed by the Institute of Technical Thermophysics of the Academy of Sciences USSR, can be used to measure frequencies in telemetry systems or for direct frequency measurements. Orig. art. has: 1 figure. [14]

SUB CODE: 14, 09/ SUBM DATE: none/ SOV REF: 002

Card 1/1 UDC: 621.317.761



GOTLIB, A.D., doktor tekhn. nauk; GIMMEL'FARB, A.A., kand. tekhn. nauk;  
YEFIMENKO, G.G., kand. tekhn. nauk; LAPA, A.M., kand. tekhn. nauk;  
POLOVCHENKO, I.G., kand. tekhn. nauk; GRISHKO, V.A., inzh.; KHARCHENKO,  
N.M., inzh.; CHECHURC, A.N., inzh.

Automatic control of temperature conditions in a blast furnace. Stal'  
25 no.7:585-589 J1 '65. (MIRA 18-65)

1. Dnepropetrovskiy metallurgicheskiy institut i metallurgicheskiy  
zavod im. Dzerzhinskogo.

GRISHKO, V.A., inzh.;

Installation of the head piece of the BKZ-210-140-PT boiler  
unit. Energ. stroi. no.33:32-39 '63. (MIRA 17:8)

1. Trest "Yuzhteploenergomontazh".

LARIONOV, L.F.; GRISHKO, V.A.

Methods for determining the cumulation and reversibility of  
the toxic effect of antitumor drugs. Uch. zap. Inst. farm.  
i khimioter. AMN SSSR 3:358-366'63. (MIKA 16:9)

1. Laboratory of Experimental Chemotherapy of the Institute  
of Experimental and Clinical Oncology of the U.S.S.R. Academy  
of Medical Sciences, Moscow.  
(CYTOTOXIC DRUGS)

L 22139-66

ACC NR: AP6012947

On the basis of these considerations, an algorithm for control of the thermal state of a furnace was developed by the Lisichan Scientific Research Institute for Computers for use in the "Sovetchik Master" (SM-2) computer at blast furnace A of the plant imeni Dzerzhinskiy. This device is a digital computer which performs the mathematical and logical processing of input information on the basis of this algorithm. 7

During an 18-day trial period in May and a 36-day trial period in October-November, 1963, the computer recommended 108 changes in coke quantity and 144 changes in blast temperature. The results were positive; the thermal state of the furnace was mainly disrupted only when the recommendations were not fulfilled and during changes in loading without recommendation by the computer.

The recommendation control considerably increased consistency in output composition. Coke usage was decreased by 2.5%. The algorithm can be used only when the furnace is under regular use. Engineer S. Z. Nemchenko, Engineer A. S. Skorobogatov, Engineer M. I. Obuvalin, Engineer T. I. Slamchinskaya, Engineer A. M. Yunchik, Engineer Yu. M. Samarets, and Engineer D. S. Kalashnikov participated in the work. Orig. art. has: 3 figures and 2 tables. [JPRS/

SUB CODE: 13, 09 / SUBM DATE: none / ORIG REF: 004

Card 2/2 *PK*

L 22139-66 EWT(d)/EMP(v)/EMP(k)/EMP(h)/EMP(l)

ACC NR: AP6012947

SOURCE CODE: UR/0133/65/000/007/0585/0589

AUTHOR: Gottlib, A. D. (Doctor of technical sciences); Gimmel'farb, A. A. (Candidate of technical sciences); Yefimenko, G. G. (Candidate of technical sciences); Lapa, A. M. (Candidate of technical sciences); Polovchenko, I. G. (Candidate of technical sciences); Grishko, V. A. (Engineer); Chochuro, A. M. (Engineer); Kharchenko, N. M. (Engineer)

ORG: Dnepropetrovsk Metallurgical Institute (Dnepropetrovskiy metallurgicheskii institut); Plant im. Dzerzhinskii (Zavod)

TITLE: Automatic control of the thermal state of a blast furnace

SOURCE: Stal', no. 7, 1965, 585-589

TOPIC TAGS: automatic control, blast furnace, algorithm, digital computer

ABSTRACT: The currently used methods for controlling the thermal state of a blast furnace have considerable deficiencies. There is considerable delay in receipt of data for control changes. Control should be performed directly on the change in thermal and reductive work of the gases, depending on their distribution in the charge and their movement through it. Theoretical principles for thermal control by composition of flue gas have been developed: a) minimum usage of coke for smelting cast iron of a given composition under given conditions of charge material and melting is defined, b) these parameters of the process are directly maintained at a level necessary to produce iron with minimum deviation from the given composition when all heat reserves of the process are used.

Card 1/2

GRISHKO, V.A.

[Study of the wear resistance of transmission gears; applicable to the operation of the reducer of the RVZ electric train] Issledovanie iznosostoikosti zubchatykh peredach primenitel'no k usloviyam raboty reduktora elektropoezda RVZ; s primeneniem metoda mechenykh atomov. Riga, Rizhskii politekhn. in-t, 1962. 42 p. (MIRA 16:5)  
(Electric railroads)

GRISHKO, V.A., inzh.

Manufacture of sharply bent branch pipes from cold stamped pipe.  
Energ. stroi. no.27:30-31 '62. (MIRA 15:9)

1. Tröst "Yuzhteploenergomontazh".  
(Pipe bending)

YEFIMENKO, G.G., kand.tekhn.nauk; GIMMEL'FARB, A.A., knad.tekhn.nauk;  
Prinimali uchastiye: POLTAVETS, V.V., inzh.; GRISHKO, V.A., inzh.;  
NEMCHENKO, S.Z., inzh.; OSTAPENKO, V.A., tekhnik; POBUDINSKIY, L.I.,  
tekhnik; KATSMAN, V.Kh., tekhnik; KARMAZIN, A.G., tekhnik

Regulating blast furnace operations by fluctuations of gas pressure  
and the distribution of materials in the hearth bottom. Stal' 22  
no.10:876-880 0'62. (MIRA 15:10)

(Blast furnaces)



Universal type of block ...

S/194/61/000/012/012/097  
D209/D303

nitude of the body angle; the manufacture of the block in its optimum version; the use of a minimum lead with each GC which prolongs its life and increases the stability of operation. The method of analysis to obtain the optimum characteristics of the GC, a formula for calculating the RMS value of the error that determines the accuracy of measurement, and a general view of the GC block type MC-4 (MS-4) are given. There are 5 figures and references. / Abstractor's note: Complete translation. /

Card 2/2

3/134/41/000 012 013 014  
010/010

AUTHOR: Grishko, V. A.

TITLE: Universal type of block for a Geiger-Müller counter

PERIODICAL: Referativnyy zhurnal, Avtomatika i telemekhanika, no. 12, 1961, 33-34, abstract 12A246 ("Zinats, V. A. Riga politehn. inst., Ush. zap. Rzhsk. polit. tekhn. in-t", 1959, 1, 81-90)

TEXT: A new construction of the block for Geiger-Müller glass counters (GC) was developed in the Laboratory of the Mechanical Department of the Riga Politechnic Institute (RPI). The construction complies with requirements for high sensitivity, stability of operation and accuracy of measurements. The side surfaces of the counters are properly protected with a lead shield (5 cm of lead). In addition, the background level is lowered to 180 imp/minute. Construction of the block has a series of advantages that permit the use of GC of the type MC (MS), LTC (STS), AC (AS) and others; the investigation, varying the number and the type of GC and the mag-

Card 1/2

BOYARSKIY, Vasil'y Sil'vestrovich; BERGER, K., red.; GRISHKO, T.,  
tekhn. red.

[Volume and surface dimensions and yield norms of lumber  
materials] Ob"emy, ploshchadi i normy vykhoda pilomaterialov.  
Izd.3., perer. i dop. Lugansk, Luganskoe oblastnoe izd-vo,  
1962. 630 p. (MIRA 15:12)  
(Lumber trade—Tables and ready-reckoners)

The TB (TV)-4 Thickness Gage

S/193/60/000/009/008/013  
A004/A001

the indicating accuracy of the device, such as diameter and ovalness of the tubes, electric conductivity of the metal, distance of the pick-up from the metal and temperature of surrounding medium. The effects of these factors can be eliminated by using various constructional and radiotechnical methods and utilizing the dependence of the readings of the device on the tube diameter. Owing to the use of the method of constant unbalance and the special automation unit, it is possible to measure with a high degree of accuracy the nonuniformity in pipe thickness and switch off the tube-drawing mechanism if the given allowances are exceeded. The reading instability of the device does not exceed  $2 \mu$  in the course of 8 hours. The time constant of the device is equal to 15 milliseconds. The author presents the following technical data: measuring range of tube wall thickness = 0.1-3.0 mm; range of tube diameters = 8-60 mm; measuring error of thickness = 1%; scale multiplying factor for the measurement of thickness =  $10 \mu$ ; scale multiplying factor for the measurement of nonuniformity of pipe thickness =  $10 \mu$ ; permissible voltage variations of the mains: from -15 to +10%; required power = 140 w; overall dimensions of the device (length x width x height) = 500 x 300 x 300 mm; weight = 19 kg. There is 1 figure.

Card 2/2

S/193/60/000/009/008/013  
A004/A001

AUTHORS: Trunin, V.G., Nikitin, A.I., Grishko, S.P.

TITLE: The T $\beta$  (TV)-4 Thickness Gage  $\checkmark$

PERIODICAL: Byulleten' tekhniko-ekonomicheskoi informatsii, 1960, No. 9,  
pp. 38-40

TEXT: The Ukrainskiy nauchno-issledovatel'skiy trubnyy institut (UkrNITI) (Ukrainian Scientific Research Institute for Tubes) has developed in 1959 the TV-4 thickness gage for the measurement of the wall thickness and nonuniformity in thickness of tubes of nonmagnetic metals. With the corresponding graduation, the device can be used for the measurement of tube and rod diameters. The operating principle of the thickness gage is based on eddy currents. The device is composed of the tube generator, pick-ups, amplifier, indicator, automatic switch-off unit of the tube-drawing mechanism and power unit. The automation unit is represented by two trigger circuits, of which one acts on thinning, the other on thickening, while simultaneously signal lamps are lighted and the motor of the tube-drawing mechanism is switched off. For the connection of a recorder, a cathode follower is included in the device. A number of outside factors affect

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ACC NR: AT6021736

oscillations; (3) connecting the integrator to the summator and closing the regulating circuit; C) adjusting integrator zero drift in the optimizer; D) evaluating effect of automatic optimization. Originally the algorithm for accomplishing set-up, start, and adjustment optimization (under conditions of substantial noise  $y_m(t)$ , high cost of the process, its unstudied nature, relatively high accuracy set for maintaining the rules) was based on apriori experience. In determining efficiency the degree of noise in  $y$  (high frequency and, in particular, low frequency) plays an essential role; therefore especially accurate methods of evaluating AO efficiency are needed in the case of even a slight increase in efficiency. One method of evaluation is periodic removal of the optimizer from an extremum found by it; the half period of such deviations must be no more than the time taken by the optimizer to to the extremum. Orig. art. has: 6 formulas, 2 tables, and 5 figures.

SUB CODE: 12 13/ SUBM DATE: 03Feb66/ ORIG REF: 003

Card 2/2

ACC NR: AT6021736

(A)

SOURCE CODE: UR/0000/66/000/000/0138/0147

AUTHOR: Grishko, N. V.

ORG: none

TITLE: Algorithm for setting up, starting, and optimizing the adjustments of an optimizer as the properties of the plant are ascertained

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 138-147

TOPIC TAGS: algorithm, optimal automatic control, industrial plant, industrial process

ABSTRACT: This article describes experience in putting into use a system of automatic optimization (AO) for the ethylene hydration process whose output is the quantity of ethyl alcohol and the controlling effect is the mole vapor-to-ethylene ratio. The optimizer used is made of units of an automatic control system and is correlated with the testing and operating traffic, which are kept separate. The system was used in 1960--1962 in a synthetic alcohol factory and has been put into industrial use. The sequence of debugging and starting the automatic optimizer is: A) testing optimizer equipment independent of the plant; B) debugging with the plant: (1) adjusting parameters of test oscillations  $x_2$ ; (2) adjusting the correlating part of the optimizer: (a) input from constant artificial signal  $y$ ; (b) input to C from computing device  $y$  without test oscillations  $x_2$ ; (c) input from computing device  $y$  with test

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ACC NR: AT6021735

made by equipment for the  $G^Z$  process of introducing and exploiting automatic optimization in industry. It was found that automatic analyzers proper must still be supplemented by several groups of units, with the result that a complete set of automatic optimization G-equipment is obtained, for a complete set makes it possible to simplify and accelerate introduction of optimization. The author speaks of set completeness in the sense that it takes into consideration practically all the existing experience on overcoming difficulties in introduction and utilization. The author emphasizes the goal in mind, rather than the state of the equipment plan at a specific moment. The complete set of equipment algorithms is designed for a settled system of optimum control of a separate industrial process and for a transient process of improving the control system. The present article describes the algorithms only in general terms. Orig. art. has: 15 formulas and 2 figures.

SUB CODE: 12 13/ SUBM DATE: 03Feb66/ ORIG REF: 005

2/2

Card



ACC NR:

AT6021735

(A)

SOURCE CODE: UR/0000/66/000/000/0127/0137

AUTHOR: Grishko, N. V.

ORG: none

TITLE: Plan of a complete set of algorithms for automatic optimization equipment

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 127-137

TOPIC TAGS: industrial automation, algorithm, automatic control equipment, optimal automatic control

ABSTRACT: Experience in industrial tests and use of automatic optimizers in 1960-1963 has been used for investigating and formulating a model of the process of introducing automatic optimization into industry and for analyzing the difficulties involved. To overcome these difficulties the plan is made of a typical algorithm for automating an individual industrial process (conventionally called algorithm G<sup>2</sup>). It performs the transitional process of automation leading to the optimum settled process of automatic control under conditions of change in the production structure. Algorithm G<sup>2</sup> is as a whole accomplished with human participation; most of the subalgorithms are carried out automatically. Thus, the volume of automatic optimization G-equipment is defined in the general G<sup>2</sup> algorithm. Algorithms entering into G as a rule function repeatedly throughout algorithm G<sup>2</sup>. This article examines the provision

Card 1/2

On optimal extremal systems

S/271/63/000/003/045/049  
A060/A126

and a unit for working out the tracking law. The appearance of new basic improvements as compared to a generalized extremal system is considered as little probable. This offers certain guarantees against technological obsolescence of extremal systems. The comparison of a number of possible realizations within the framework of a generalized extremal system makes it possible to select one of the systems yielding the optimal solution within the class of linear extremal systems. The role played by extremal control in the general process of improvement of automatic control systems is clarified. There are 5 figures and 12 references.

Ya. K.

[Abstracter's note: Complete translation]

Card 2/2

S/271/63/000/003/045/049  
A060/A126

AUTHOR: Grishko, N.V.

TITLE: On optimal extremal systems

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 3, 1963, 78, abstract 3B466 (In collection "Avtomat. regulirovaniya i upravleniye", Moscow, AN SSSR, 1962, 78 - 101)

TEXT: For extremal control in the presence of large disturbances systems are required which possess a minimum mean square tracking error of the extremum under random actions. On the basis of a theoretical investigation and logical considerations the following engineering problems are solved: 1) to find the structure of an extremal system; 2) to obtain recommendations as to optimal setting of an extremal system; 3) a preliminary estimate of the economic expediency of applying extremal control; 4) to verify the expediency of complicating the structure of an extremal system in order to improve its quality. By the application of the deductive method a generalized structure of an extremal system is found, consisting of a unit for measuring the distance from the extremum

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|                                                                                                                                                      |          |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----|
| Automatic Regulation (Cont.)                                                                                                                         | SOV/6012 |     |
| Grishko, N. V. Optimum extremal control systems                                                                                                      |          | 78  |
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| Card 4/12                                                                                                                                            |          |     |

Automatic Regulation (Cont.)

SOV/6012

The articles are organized in seven sections, including automatic control systems, automatic process control, computing and decision-making devices, automation components and devices, statistical methods in automation, theory of relay circuits and finite automatic systems, and automated electric drives. No personalities are mentioned. References are given at the end of each article.

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PART I. AUTOMATIC CONTROL SYSTEMS

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Card 2/12

GRISHKO, N. V.

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PHASE I BOOK EXPLOITATION SOV/6012

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.

Avtomaticheskoye regulirovaniye i upravleniye (Automatic Regulation and Control) Moscow, Izd-vo AN SSSR, 1962. 526 p. Errata slip inserted. 9000 copies printed.

Resp. Ed.: Ya. Z. Tsypkin, Professor, Doctor of Technical Sciences;  
Ed. of Publishing House: Ye. N. Grigor'yev; Tech. Ed.: I. N. Dorokhina.

PURPOSE: This book is intended for scientific research workers and engineers concerned with automation.

COVERAGE: The book is a collection of articles consisting of papers delivered at the 7th Conference of Junior Scientists of the Institute of Automation and Telemechanics, Academy of Sciences USSR, held in March 1960. A wide range of scientific and technical questions relating to automatic regulation and control is covered.

Card 1/12

24837

S/103/61/022/008/005/015  
D274/D302

Determination of optimum...

but depend on  $\Delta R_{x_m}$  only, i.e.  $K$  does not depend on the "amplitude" of the change in the position of the extremum  $x_m$ , but only on the "smoothness" of the change. This result makes it possible to considerably reduce the amount of characteristics of the object involved in optimum adjustment of a linear extremal system. The components of  $K$ , due to the oscillations  $x_2$ ,  $x_m$  and  $y_m$ , are independent. This makes it possible to considerably simplify the experimental and analytical study of the extremal system, as well as the final relationship between the minimum error  $K_{min}$  and the conditions of the search process. This possibility applies only in the case of a parabolic characteristic; then  $K$  reduces to the mean-square error criterion. There are 1 figure and 3 Soviet-bloc references.

SUBMITTED: July 26, 1960

Card 4/5

24837

S/103/61/022/008/005/015  
D274/D302

Determination of optimum...

relationships, the first 4 of which are

$$K = K_1 + K_2 = K_{1xm} + K_2 + k, \quad (11^*)$$

$$K_2 = \overline{x_2^2} = \frac{1}{T_2} \int_0^{T_2} x_2^2(\theta) d\theta, \quad (1^*)$$

$$K_{1xm} = 2 \int_{-\infty}^{\infty} g_{01}(\tau) \Delta R_{xm}(\tau) d\tau - \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} g_0(\tau, \theta) \Delta R_{xm}(\tau - \theta) d\tau d\theta \quad (7^*)$$

$$\Delta R_{xm}(\tau) = R_{xm}(0) - R_{xm}(\tau_1), \tau_1 = \tau - \theta \quad (6^*)$$

$R_{xm}$  and  $R_{ym}$  (which appears in a following relationship) are the correlation functions of the laws of change of  $x_m$  and  $y_m$ ;  $\tau$  and  $\theta$  are periods of time;  $g$  are weighting functions. It is concluded with regard to the obtained expression for  $K$  that for computing  $K$  and for selecting the optimum characteristics of the extremal system, it is not necessary to know the functions  $x_m(t)$  and  $y_m(t)$  themselves; it is enough to know their correlation functions.  $K$  and the optimum characteristics do not depend directly on  $R_{xm}(0)$

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 103-01/022/008/005/0.5  
 270-502

Determination of optimum

where  $x, y$  are the input and output coordinates;  $x_m(t), y_m(t)$  are the coordinates of the extremal point;  $\eta, \epsilon$  are noise and noise. The quality criterion is written as

$$K = \lim_{T \rightarrow \infty} \frac{1}{T} \int_0^T |x_m(t) - y_m(t)| dt \quad (3)$$

The problem consists in finding the optimum characteristics of the extremal system which make  $K$  a minimum. An analytical expression for  $K$  is derived in terms of given characteristics  $x_m$  and  $y_m$  of the object and in terms of arbitrary characteristics  $g_1, g_2, t$ ,  $y_{2k}(t)$ , and  $g_{3k}(s)$  of the chosen extremal system;  $g_3$  is a stationary weighting function is denotes periods of time. The derivation proceeds from the equation of motion of the system of object-extremal system  $G$ . This equation shows that extremal systems require a fairly complex device for measuring the error  $\Delta x_1 = x_1 - x_m$ . This leads to the importance (in optimum extremal systems) of determining the optimum characteristics of the measuring device. The final expression for  $K$  is represented in the form of a chain of

(and 2.5

17103/61/022/000/005/015  
1274/1302

16.9000 (1031, 1124, 1344)

AUTHOR: Grishko G. V. (Moscow)

107) determination of optimum characteristics of an entire system under random disturbances [1].

10.3.1926

where  $\epsilon$  is an analytical expression is derived for a quality criterion of the system, in the case of a  $\delta$  small characteristic thin criterion reduces to the mean-square error criterion. A diagram of the system is shown in the figure. Oscillations  $x_0$  are entered in the system which are applied to one of the inputs of the multiplier unit. Other  $x_0$  is transformed into  $x_{0K}$  and then multiplied by the output coordinate  $y$  of the object. The product is averaged over the time  $T_p$  to the end of every period  $T_p$  a pulse proportional to the average is applied, denoted by  $B$ . Unit  $B$  generates the control function  $u$ . The object  $O$  has a static parabolic characteristic  $y = y_p + (x - x_m)^2$ . (2)

ord 1,5

GRISHKO, N.V. (Moskva)

Automatic pneumatic optimizer [with summary in English]. Avtom.  
i telem. 22 no.5:654-663 My '61. (MIRA 14:6)  
(Pneumatic control) (Automatic control)

GRISHKO, N.V. (Moskva)

Extremum controller with extremum tracing [with summary in  
English]. Avtom. i telem. 20 no.4:521-524 Ap '59. (MIRA 12:5)

(Automatic control)

JOHNSON, P.F.; CHENEO, H.T.

Establishing the advantageousness of wide working drifts  
in flat Borots basin seams. Isv. DSI 42:144-156 '64.  
(MIR 18:11)

NEKRASOVSKIY, Ya.E.; LOKSHIN, B.S.; MASEVICH, M.V.; GRISHKO, N.T.

Mechanization of the mining of thin flat coal beds. Ugol.  
prom. no.5:51-53 S-0 '62. (MIRA 15:11)

1. Dnepropetrovskiy gornyy institut im. Artema.  
(Coal mines and mining)

GRISHKO, N.T., inzh., SAVOST'YANOV, A.V., kand.tekhn.nauk

Study of the effect of the depth of a working on the distribution of stresses around a drift, given various means of supporting it.  
Izv. vya. ucheb. zav.; gor. zhuk. o. no.3,31-38 '61. (MIRA 16:10)

1. Prepropetrovskiy otdel Tral'noye Krasnoye Zhameni gornyy institut imeni Arlena. Razmesh' vana kafedroy razrabotki mestorozhdeniy poleznykh iskopaemykh.

GRISHKO, N.T.; LOKSHIN, B.S.

Methods for determining the advantages of the wide work system  
for mining drifts in flat seams. Ugol' Ukr. 5 no.5:42-44 Ap '61.  
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.  
(Donets Basin--Coal mines and mining)



GRISHKO, N.T., inzh.

Maintenance cost of slab entry mined drifts in flat pitching seams.  
Ugol! Ukr. 3 no.2:42-43 F ' 59. (MIRA 12:3)

1. Dnepropetrovskiy gornyy institut.  
(Coal mines and mining--Costs)

NEKRASOVSKIY, Ya.B., professor; LOKSHIN, B.S., dotsent; GRISHKO, N.T.,  
assistant.

Use of special shields under laboratory and experimental  
conditions to demonstrate the feasibility of driving headings  
in seams where coal and gas outbursts are likely to occur.  
Izv. DGI no.24:5-49 '55. (MLRA 10:2)

(Coal mines and mining--Safety measures)

GRISHKO, N.P.; FENKINA, R.A.

Outbreak of alimentary toxicoinfection caused by staphylococcus and  
Escherichia coli. Med.zhur.Uzb. no.1:59:60 Ja '59. (MIRA 13:2)

1. Iz klinicheskoy infektsionnoy bol'nitsy No.1 goroda Samarkanda  
(glavnyy vrach - N.N. Aronbayev).  
(SAMARKAND--FOOD POISONING) (STAPHYLOCOCCUS) (ESCHERICHIA COLI)

Grishko, N. P.

✓ 4786 Treatment of brucellosis with Glutamine. M. N. Vindman  
and N. P. Grishko. *Zh. mikrob. Zoonoz. i Infekt. 1955, No. 4*  
65-68. *Referat Zh. Biol. 1956, Abstr. No. 52014. (Russian)*  
R. SCHACHTER

Med 2

GRISHKO, N.N.

Plant acclimatization in the Ukraine. Biul. Glav. bot. sada  
no.31:12-18 '58. (MIRA 12:5)

1. Botanicheskiy sad AN USSR.  
(Ukraine--Acclimatization (Plants))

USSR/Cultivated Plants - Introduction and Acclimatization.

1-2

Abs Jour : R. A. Zhur - Biol., No 9, 1953, 39153

in the nature of plants under the influence of conditions of life and of human activity. Human activity directs this variability to enable the plant to adapt itself to the new conditions of life and guarantees its productivity under these conditions. It is advised not to use the term "naturalization" as the plant always changes, and it is placed under new conditions. -- I.K. Fortunatov.

Card 2/2

- 6 -

USSR/Cultivated Plants - Introduction and Acclimatization.

12-2

Abstr Jour : Abstr Jour - Biol., H. 2, 1974, 20153

Author : Grieshe, N.H.

Inst : Botanical Institute AS USSR

Title : Tr. Doc. in-ta AN USSR, 1957, Ser. 6, vyp. 5, 33-36.

Abstract : The work of the Botanical Garden of the Academy of Sciences, Ukrainian SSR showed the effectiveness of a method of gradual acclimatization of the tea plant, paulownia, edible camellia, Japanese cryptomeria, the cedar of Lebanon and others. The role of hybridization in the acclimatization of plants is stressed. It is noted, that the introduction is accompanied by a change in the hereditary nature of plants, which increases in each succeeding generation. It is proposed that the term "acclimatization" be substituted for that of "introduction", as reflecting the acclimation of variability.

Card 1/2

YUKHIMCHUK, Danil Filippovich; GRISHKO, N.N., akademik, red.; TEPLYAKOVA, A.,  
red.; BERBENETS, P., tekhn.red.

[Hedges; their arrangement and care] Zhivye izgorodi; ustroistvo  
i ukhod za nimi. Pod red. N.N.Grishko. Kiev, Gos. izd-vo  
lit-ry po stroit. i arkhitekt. USSR, 1957. 90 p. (MIRA 11:5)

1. Akademiya nauk USSR (for Grishko)  
(Hedges)



GRISHKO, N. N.

First results of work at the Botanical Garden of the Academy of  
Sciences of the Ukrainian S.S.R. Trudy Bot.sada AN URSR 3:3-13  
'55. MLRA 10:8)  
(Kiev--Botanical gardens)

YUKHIMCHUK, Daniil Filippovich; GRISHKO, N.N., redaktor; PLOTNIKOV, S.A.,  
redaktor; GALAKTIONOVA, Ye.N., tekhnicheskii redaktor

[Roadside improvement with fruit trees] Ozelenenie avtomobil'nykh  
dorog plodovymi derev'iami. Pod red. N.N.Grishko. Moskva, Nauchno-  
tekhn. izd-vo avtotransp. lit-ry, 1955. 33 p. [Microfilm] (MLRA 10:6)

1. Deystvitel'nyy chlen Akademii nauk USSR (for Grishko)  
(Roadside improvement)

NAZAREVSKIY, S.L.---(continued) Card 4.

sad Akademii nauk Usbekskey SSR (for Rusanov, Bochantseva); 44.  
Botanicheskiy sad Akademii nauk Turkmenskoy SSR (for Blinovskiy);  
45. Respublikanskiy sad Akademii nauk Kazakhskoy SSR (for Klyshev,  
Mushegyan).

(Botanical gardens)

NAZAREVSKIY, S.L.---(continued) Card 3.

Akademii nauk USSR (for Grishko, Likhvar', Vil'chinskiy); 24. Kiyevskiy sel'skokhozyaystvennyy institut (for Lypa); 25. Botanicheskiy sad Chernovitskogo gosudarstvennogo universiteta (for Orekhov); 26. Botanicheskiy sad pri L'vovskom gosudarstvennom universitete imeni Iv. Franko (for Shcherbina); 27. Botanicheskiy sad Khar'kovskogo gosudarstvennogo universiteta imeni A.M. Gor'kogo (for TSygan-kova); 28. Botanicheskiy sad Zhitomirskogo sel'skokhozyaystvennogo instituta (for Baranovskiy); 29. Botanicheskiy sad Akademii nauk Belorusskoy SSR (for Georgiyevskiy); 30. Institut biologii Akademii nauk Belorusskoy SSR (for Stepunin); 31. Botanicheskiy sad Akademii Litovskoy SSR (for Lukaytene); 32. Botanicheskiy sad Latviyskogo gosudarstvennogo universiteta (for Ozolin); 33. Kabardinskiy krayeved-cheskiy botanicheskiy sad (for Kos); 34. Sukhumskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Vasil'yev, Rukhadze); 35. Batuskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Shanidze); 36. Tbilisskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Mandzhavidze); 37. Sochinskiy park Dendrariy (for Korkeshko); 38. Gosudarstvennyy Nikitskiy botanicheskiy sad imeni V.M. Molotova (for Sergeyev, Voloshin); 39. Krymskiy filial Akademii nauk SSSR (for Rybin); 40. Botanicheskiy sad Moldavskogo filiala Akademii nauk SSSR (for Ivanova); 41. Botanicheskiy sad Botanicheskogo instituta Akademii nauk Tadzhikskoy SSR (for Ryabova); 42. Botanicheskiy sad Kirgizskogo filiala Akademii nauk SSSR (for Gareyev); 43. Botanicheskiy  
(continued on next card)

NAZAREVSKIY, S.L.---(continued) Card 2.

gosudarstvennogo ordena Lenina universiteta (for Zalesskiy); 6. Pol'yarno-Al'piyskiy botanicheskiy sad Kol'skogo filiala imeni S.M. Kirova Akademii nauk SSSR (for Avrorin); 7. Botanicheskiy sad pri Tomskom gosudarstvennom universiteta (for Ivanov); 8. Botanicheskiy sad pri Tomskom gosudarstvennom universiteta imeni V.V. Kuybysheva (for Prik-ladov); 9. Tsentral'nyy Sibirskiy botanicheskiy sad Zapadno-Sibirsko-go filiala Akademii nauk SSSR (for Salamatov, Sobolevskaya); 10. Bo-tanicheskiy sad Irkutsko gosudarstvennogo universiteta imeni A.A. Zhdanova (for Malinovskiy); 11. Altayskaya plodovo-yagodnaya opyt-naya stantsiya (for Luchnik); 12. Bashkirskiy botanicheskiy sad (for Kravchenko); 13. Lesostepnaya selektsionnaya opyt'naya stantsiya deko-rativnykh kul'tur tresta Goszelenkhoz Ministerstva kommunal'nogo kho-zyaystva RSFSR (for Vekhov); 14. Bryanskiy leskhozayaystvennyy insti-tut (for Grozdov); 15. Botanicheskiy sad pri Vorenezhskom gosudar-stvennom universitete (for Mashkin); 16. Orekhevo-Zuyevskiy pedago-gicheskiy institut (for Bosse); 17. Botanicheskiy sad pri Rostovskom gosudarstvennom universitete imeni V.M. Molotova (for Matukhin); 18. Botanicheskiy sad Kuybyshevskogo gorodskogo otdela narodnogo obrazo-vaniya (for Zatvarnitskiy); 19. Zoobotanicheskiy sad pri Kazanskom universitete (for Grachev); 20. Gosudarstvennyy respublikanskiy proektnyy institut "Giprokommunistroy" (for Cherkasov); 21. Botani-cheskiy sad Odesskogo gosudarstvennogo universiteta imeni I.I. Mechni-kova (for Kirkopulo); 22. Botanicheskiy sad pri Dnepropetrovskom gosudarstvennom universitete (for Levitskaya); 23. Botanicheskiy sad  
(continued on next card)

NAZAREVSKIY, S.I.; MAKAROV, S.N.; PILIPENKO, P.S.; GERASIMOV, M.V.; IL'INSKAYA, M.L.; VEKSLER, A.I. (dacha); VASIL'YEV, I.M.; IL'INA, N.V.; SOKOLOV, S.Ya.; LOZINA-LOZINSKAYA, A.S.; SAAKOV, S.G.; ZALESSKIY, D.M.; AVROBIN, N.A.; IVANOV, M.I.; PRIKADOV, N.V.; SOROLEVSKAYA, K.A.; SALAMATOV, M.N.; MALINOVSKIY, P.I.; LUCHNIK, A.I.; KRAVCHENKO, O.A.; VEKHOV, N.K.; GROZDOV, B.V.; MASHKIN, S.; BOSSE, G.G.; PALIN, P.S. (g. Shuya, Ivanovskoy oblasti); MATUKHIN; ZATVARNITSKIY, G.F.; GRACHEV, N.G.; CHERKASOV, M.I.; KIRKOPULO, Ye.N.; LEVITSKAYA, A.M.; GRISHKO, N.N.; LIKHVAR', D.F.; VIL'CHINSKIY, N.M.; LYPA, A.L.; OREKHOV, M.V.; SHCHERBINA, A.A.; TSYGANKOVA, V.Z.; BARANOVSKIY, A.L.; GEORGIYEVSKIY, S.D.; STEPUNIN, G.A.; OZOLIN, E.P.; LUKAYTENE, M.K.; KOS, Yu.I.; VAIL'YEV, A.V.; RUKHADZE, P.Ye.; VASHADZE, V.N.; SHANIDZE, V.M.; MANDZHAVIDZE, D.V.; KORKESHKO, A.L.; KOLESNIKOV, A.I. (g. Sochi); SERGEYEV, L.I.; VOLOSHIN, M.P.; RYBIN, V.A.; IVANOVA, B.I.; RYABOVA, T.I.; GAREYEV, E.Z.; RUSANOV, F.N.; BOCHANTSEVA, Z.P.; BLINOVSKIY, K.V.; KLYSHEV, L.K.; MUSHEGYAN, A.M.; LEONOV, L.M.

Talks given by participants in the meeting. Biul. Glav. bot. sada no. 15: 85-182 '53. (MLRA 9:1)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR (for Makarov, Pilipenko, Gerasimov, Il'inskaya, Veksler); 2. Akademiya komunal'nogo khozyaystva imeni K.D. Pamfilova for Vasil'yev); 3. Vsesoyuznaya sel'skokhozyaystvennaya vystavka (for Il'ina); 4. Botanicheskiy sad Botanicheskogo instituta imeni V.L. Komarova Akademii nauk SSSR (for Sokolov, Lozina-Lozinskaya, Saakov); 5. Botanicheskiy sad Leningradskogo
- (continued on next card)

GRISHKO, N.N.

Work of botanical gardens in applying scientific advances. Biul.  
Glav.bot.sada no.15:67-70 '53. (MLRA 9:1)

1.Botanicheskiy sad Akademii nauk USSR.  
(Botanical gardens)

GRISHKO, N. N.

22391. Grishko, N. N. BOTANICHESKIY SAD AKADEMII NAUK UKRAINSKOY SSR. BYULLETEN'  
GLAV. BOTAN. SADA, VYP. 2, 1949, S. 31-39

SO: LETOPIS' No. 30, 1949



SILAYENKOV, Yevgeniy Semenovich, kand. tekhn. nauk; SOISEYEV, Nikolay Moiseyevich; TURKO, Mikhail' Leybovich

[Finishing cellular concrete panels with stone grinding materials; practices of the Construction Research Institute of Sverdlovsk and the First Ural Combine for Reinforced Concrete Products and Elements of the "Ural Administration for Heavy Pipe Mill Construction" Trust] Otdelka paneli iz iacheistogo betona kamennymi droblennymi materialami; opyt NII po stroitel'stvu v g. Sverdlovsk i Pervoural'skogo kombinata zhelezobetonnykh izdelii i konstruktsei tresta "Uraltiazhtrubstroi." Moskva, Gostroiizdat, 1963. 25 p. (MIRA 17:9)

1. Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Rukovoditel' sektora krupnopanel'nogo stroitel'stva Nauchno-issledovatel'skogo instituta po stroitel'stvu v gorode Sverdlovsk (for Silayenkov). 3. Glavnyy tekhnolog sektora krupnopanel'nogo stroitel'stva Nauchno-issledovatel'skogo instituta po stroitel'stvu v gorode Sverdlovsk (for Grishko). 4. Direktor Pervoural'skogo kombinata zhelezobetonnykh izdelii i konstruktsey tresta "Uraltiazhtrubstroy" (for Turko).

KUTEPOVA, A.I.; GRISHKO, N.I.; KAGAN, Yu.B.; LOKTEV, S.M.; MAL'TSEVA, R.P.;  
SHTEKKER, O.A.

Preparation of phthalate plasticizers on the base of the wide  
fractions of C<sub>5</sub>-C<sub>12</sub> alcohols. Plant. massy.no.10:22-24 '65.  
(MIRA 18:10)

L 32997-65 ERI(c)/EPR/EWP(j)/EWT(m) Po-4/Pra-4/Ps-4 JAJ/RH/WW  
 ACCESSION NR: AF5007418 S/0286/65/000/004/0059/0059

AUTHOR: Grishko, N. I.; Mal'tseva, R. P.; Gitis, S. S.; Kutsenko, A. I.; Kutepova, A. I.; Komissarova, G. I.; Shtekker, O. A.

TITLE: A method for producing plasticizers for polyvinylchloride. Class 39, No. 168424 <sup>16</sup> <sub>31</sub> <sub>B</sub>

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 59

TOPIC TAGS: polyvinylchloride, plasticizer

ABSTRACT: This Author's Certificate introduces a method for producing plasticizers for polyvinylchloride. The plasticizers are based on aromatic carboxylic acids and monohydric aliphatic alcohols. A wider selection of raw materials is provided by using the products of oxidation of an industrial blend of xylenes which is poor in *m*-xylene. The Author's Certificate also covers a modification of this method in which an industrial blend of xylenes is used which is poor in *o*- and *n*-xylenes.

ASSOCIATION: none

Card 1/1

KUTEPOVA, A.I.; GUR'YANOVA, Ye.N.; MAL'TSEVA, R. .; GRISHKO, N.I.;  
KOMISSAROVA, G.I.; TSAREVA, V.N.

Diesters of isophthalic acid as plasticizers. Plast. massy  
no.2:52-56 '64. (MIRA 17:8)

BRYNZA, A.P.; RYNSKAYA, Ye.S.; GRECHANOVSKIY, V.F.; GRISHKO, N.I.;  
ZHURBA, T.V.

Atmospheric corrosion of copper powder in the presence of  
sulfur dioxide. Zhur. prikl. khim. 36 no.9:1936-1942 D '63.  
(MIRA 17:1)

1. Dnepropetrovskiy gosudarstvennyy universitet imeni  
300-letiya vossoyedineniya Ukrainy s Rossiyei.

GUR'YANOVA, Ye.N.; GRISHKO, N.I.

Structure of iso- and terephthalates by the method of dipole moments.  
Zhur.strukt.khim. 4 no.3:368-371 My-Je '63. (MIRA 16:6)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova, Novomoskovskiy  
filial, i Gosudarstvennyy proyektnyy i nauchno-issledovatel'skiy  
institut azotnoy promyshlennosti, Novomoskovsk.  
(Isophthalic acid--Dipole moments)  
(Terephthalic acid--Dipole moments)

Isotopic Exchange of Sulfur and Structure of the  
"Disulfoxides" (Sulfonsulfides)

SVV/79-29-3-27/61

concerning the isotopic exchange of sulfur between the esters of the thiosulfo acids and elementary sulfur are presented in table 1 and those between these esters and disulfides in table 2. A mechanism of the antibacterial activity of the sulfosulfides was suggested. There are 4 tables, and 9 references, 7 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut imeni L. Ya. Karpova i Dnepropetrovskiy gosudarstvennyy universitet (Physico-chemical Institute imeni L. Ya. Karpov and the Dnepropetrovsk State University)

SUBMITTED: February 8, 1958

Card 3/3

Isotopic Exchange of Sulfur and Structure of the  
"Disulfoxides" (Sulfonsulfides)

367/79-22-3-27/61

thiosulfo esters with compounds containing the sulfhydryl and disulfide groups will not only be able to explain the influence exercised by the structure upon the reactivity but also to elucidate the mechanism of the antibacterial activity. On the strength of these considerations the work reported in this paper was carried out in three directions: 1) the isotopic exchange of sulfur between various thiosulfo esters and the elementary radioactive sulfur was investigated. 2) The exchange of the RS groups between various thiosulfo esters and radioactive disulfides was investigated. 3) Likewise the conditions of the reactions of thiosulfo esters with mercaptans were investigated. It was shown that the thiosulfo esters on heating up to  $170^{\circ}$  are not subject to isotopic exchange with the elementary radioactive sulfur. The isotopic exchange of the RS groups between the thiosulfo esters and the organic radioactive disulfides was determined. From this it was concluded to the sulfosulfide structure of the "disulfoxides". The influence exercised by the composition and the structure of the radicals upon the reactivity of the thiosulfo esters with disulfides and mercaptans was investigated. The results

Card 2/3



5 (2,3) .  
 AUTHORS: Grishko, M. I., Gur'yanova, Ye. M. SOV/77-29-3-27/61  
 TITLE: Isotopic Exchange of Sulfur and Structure of the "Disulf-  
 oxides" (Sulfonsulfides) (Izotopnyy obmen sery i stroeniye  
 "disul'foksidov" (sul'fonsul'fidov))  
 PERIODICAL: Zhurnal obshchey khimii. 1959, Vol 29, Nr 3, pp 678-684 (USSR)  
 ABSTRACT: Originally the structure R-SO-SO-R' (I) was attributed to the  
 "disulfoxides". In the last years the interest in these com-  
 pounds increased due to the antibacterial and antibiotic  
 properties discovered in them (Refs 1,2), which led to many  
 new syntheses of this class (Ref 3). Recently, more and more  
 purely chemical and physico-chemical data were presented which  
 point to the sulfonsulfide or thiosulfonate (II) structure.  
 In continuation of earlier experiments (Ref 4) on the thio-  
 sulfo esters in the present paper the structure and the re-  
 activity of the above mentioned compounds were investigated  
 by means of radioactivated atoms which has hitherto not been  
 carried out. The authors hoped to obtain by this method com-  
 plementary data on the structure of the thiosulfo esters as  
 well as on their reactivity with other compounds containing  
 sulfur. The investigation of the reaction mechanism of the

Card 1/3

The Mobility of RS-Groups in Organic Thiosulfoxides (Sulfone Sulfides) S. V. 1957-12-1-12, 42

configuration II of the thiosulfoxide ethers. The results of the present paper indicate that the thiosulfoxide ethers are capable to react not only with sulfoximide but also with the disulfide groups of the compounds and apparently also with the disulfide binding of the protein molecules. For this reason the mechanism of the antibacterial effect may be another one than that assumed earlier. There are 1 table and 7 references, 6 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im. L.Ya.Karapenev (Physico-chemical Institute imeni L.Ya.Karapenev)

PRESENTED: April 28, 1958, by I.L.Khuyants, Member, Academy of Sciences, USSR

SUBMITTED: November 12, 1957

Card 3/4

[illegible]

In the present study we used for the first time the method of **radioisotope tagging** of sulfur. However, we had been expected the attempt to exchange sulfur between the thioether ethers and the disulfide radioactive sulfur was a failure. The results of the exchange of sulfur between thioether ethers and disulfides are given in table 1. In all cases the activity of the precipitation was determined by barium sulfate. As it can be seen from table 1 an isotope exchange of sulfur takes place under certain conditions in all systems investigated. Experiments between thioether ethers and the disulfide with different R have demonstrated that the radioactive sulfur isotope shifted from one molecule into another not because of the exchange between sulfur atoms but as a consequence of the exchange of the RS-groups. It was observed that the radioactive sulfur isotope shifted from the disulfide molecule into the thioether molecule together with the aryl radical. In other words, an exchange between the RS-groups takes place. This is a very important proof for the

Card 2/4

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[illegible][illegible]

Structure: Since after 1 year's distillations have been published in 1961, 1 lit. source on the structure of "thioalfoxides". Obviously it is not known that the compound mentioned in the title has the structure  $R-SO-SO-R'$  (I). In the course of the last year it was found that the structure of the compound is identical to the compound  $(R-O-S-O-R')$  (II) which is known as the isomer in them. A series of experiments carried out this year were published (1961). As a result of the number of data in addition to the structure of the structure  $R-SO-SO-R'$  (I). Further (1961) it was found that the dipole moment of the compound is the same as that of a large group of thioalfoxides and this led to a conclusion on the structure (II) of the "thioalfoxides".

The Dipole Moments and Vibration Spectra of Organic  
Thiosulfonates (Dialkylsulfonic Oxides)

77/76-42-42-11, 12

measured in benzene or dioxan at temperatures of 25° and 40° C. The Raman spectra of diethyl-sulfone and of the ethylester of ethylsulfonic acid were taken with the ISP-51 apparatus. These dipole moments showed bands corresponding to  $\text{SO}_2$ , but lacking the S-O bands. Thus, the thiosulfonate formula  $\text{R-SO}_2\text{-S-R'}$ , also suggested by the dipole moments, is confirmed. There are 3 tables and 24 references, 9 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova, Moscow  
(Physico-Chemical Institute imeni L. Ya. Karlov, Moscow)

SUBMITTED: July 31, 1957

5(4)

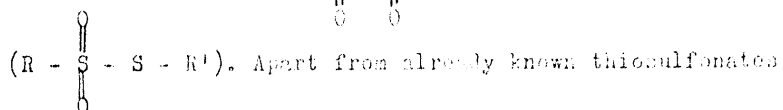
AUTHORS: Grishko, M. I., Gar'yanova, Ye. M.

SOV/76-32-42-11/33

TITLE: The Dipole Moments and Vibration Spectra of Organic Thio-sulfonates (Disulfonic Oxides) (Dipol'nyye momenty i kolebatel'nyye spektry organicheskikh tiosul'fonatov (disul'foksidov))

PERIODICAL: Zhurnal fizicheskoy khimii, 1976, Vol. 50, No. 12, pp. 2725 - 2730 (USSR)

ABSTRACT: The antibiotic properties of these compounds have raised a good deal of interest and, recently, there have been quite a few indications that these compounds are not disulfonic oxides ( $R - S - S - R'$ ) but thiosulfonates



new compounds have been produced: ethylester of p-bromobenzene thiosulfonic acid and of  $\beta$ -naphthalene-thiosulfonic acid. The dipole moments of 12 compounds were

Card 1/2

Isotopic Conversion of Sulfur in Salts of  
Organic Thiosulfic Acids

79 28-5 39/59

There are 3 figures, 6 tables and 13 references, 2 of  
which are Soviet.

ASSOCIATION: Nauchno issledovatel'skiy fiziko-khimicheskiy institut  
imeni Karpeva, Dnepropetrovskiy gosudarstvennyy universi-  
tet (Scientific Physical-chemical Research Institute imeni  
Karpov and Dnepropetrovsk State University)

SUBMITTED: January 21, 1957

Card 3/3

Isotopic Conversion of Sulfur in Salts of  
Organic Thiosulfo Acids

79 28 5 19/69

bility of the sulfur in these compounds is of great interest. The authors hope to achieve experiences on the influence of some factors on the velocity of isotopic conversion, factors of structural kind (for explaining the structure and reactivity of this compound) and of external kind (solvents, temperature). The isotope of the sulfur  $S^{34}$  was used for the experiments. Thus the conversion of different thiosulfo acids  $RSO_2$  with elementary sulfur  $S^{35}$  in toluene alcohol solutions at various temperatures was investigated. On this occasion the activity energy of the conversions was determined. The important influence of the radical and of the metal on the convertibility of the salts is shown; special attention was paid to its composition and structure. The electric conductivity of a number of thiosulfosalts was calculated in the toluene alcohol mixture at various concentrations of salts as 1. the degree of dissociation. The reaction mechanism of the conversion of sulfur in thiosulfosalts was discovered.

Card 2/3



AUTHORS: Grishko, N. I., Guryanova, Ye. N. 79 28 5 39/69

TITLE: Isotopic Conversion of Sulfur in Salts of Organic Thiosulfic Acids (Izotopnyy obmen sernykh i selyakh or ganicheskikh tiotsul'ficheskikh)

PERIODICAL: Zhurnal Obshchey Khimii 1959, Vol. 29, No. 5, pp. 1297 - 1295 (USSR)

ABSTRACT: In continuation of Russian and foreign works on the isotopic conversion of sulfur in salts of organic thiosulfic acids this investigation was carried out in order to determine in more detail the basic rules which fix the convertibility of sulfur in sulfur salts, to investigate them and to explain the mechanism of these conversions. The hitherto-not-investigated group and a of different thiosulfic acids  $R-SO_2SH$  was taken as experimental object. The derivatives of these acids are widely used in chemical practice as intermediate products in the synthesis of dyes, pharmaceutical preparations, etc.

Card 1/3

For this reason the investigation of the now

GRISHKO, P.I.

Experience in ophthalmological service in Cherkassy Province.  
Vestn. oftal. 76 no.4:54-56 J1- Ag'63 (MIRA 17:1)

1. Glaznoye otdeleniye Oblastnoy bol'nitsy, Cherkassy.

GRISHKO, F.I.

Negative effect of cortisone in metastatic tuberculosis of the  
eye. Vest. oft. no. 6:10-13 '60. (MIRA 14:11)

1. Zaveduyushchaya glaznym otdeleniyem oblastnoy bol'nitsy,  
Cherkassy.

(EYE--TUBERCULOSIS) (CORTISONE)

GRISHKO, N.P., and.

Conference by mail of long-distance telephone communication  
workers. Vest. sviyazi 24 no. 532228 by '64. (MIRA 17:6)

1. Proizvodstvennaya Laboratoriya Saratovskoy mezhduнародnoy  
telefonnay stantsii.

GRISHKO, N.D., inzh.-ekonomist

We are improving the organization of work. Vest. sviazi 22  
no.9:15 S '62. (MIRA 15:9)

1. Proizvodstvennaya laboratoriya Saratovskoy mezhdugorodnoy  
telefonnoy stantsii.

(Telephone)

L 62086-65

ACCESSION NR: AP5016722

ENCLOSURE: 01

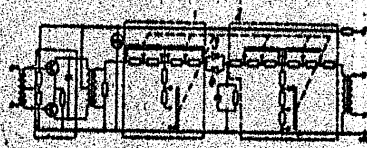


Fig. 1.  
1 and 2- variable attenuators; 3 and 4- silicon stabilitrons

Card <sup>KC</sup> 2/2

L 62086-65 EEC-4/EWT(d)/EEG(t)/FSS-2 Pn-4/Pg-4/Pac-4

ACCESSION NR: AP5016722

UR/0286/65/000/010/0041/0041

AUTHORS: Grishko, N. A.; Sheremet'yev, A. V.

TITLE: Device for shielding the channels of long distance telephone service,<sup>28</sup>  
Class 21, No. 171022

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 41

TOPIC TAGS: <sup>8</sup>telephone equipment, telephone line, noise suppression

ABSTRACT: This Author Certificate presents a device for shielding the channels of long distance telephone service from noise currents and audible cross-talk by limiting them to the moments when a useful signal is absent. To combine the functions of signal level control and channel cutoff, two silicon stabilitrons interconnected antiparallel are connected in series between the double variable attenuators (see Fig. 1 on the Enclosure). Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 07Oct61

ENCL: 01

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

Card 1/2

GRISHKO, N.A.; SHEREMETEV, A.V.; ROZOVSKAYA, M.I., otv. red.;  
CHESNOKOVA, T.V., red.; ROMANOVA, S.F., ~~tekh.~~ red.

[VUS-12-2 auxiliary repeater stations] Vspomogatel'nye  
usilitel'nye stantsii VUS-12-2. Moskva, Sviaz'izdat,  
1962. 62 p. (MIRA 16:4)  
(Telephone)



GRISHKO, N.A.; SHEREMET'YEV, A.V., kand.tekhn.nauk

Auxiliary VUS-12-2 amplifying station. Vest. svyazi 20 no.11:3-5  
N '60. (MIRA 13:12)

1. Starshiy inzhener Kiyevskogo otdeleniya TSentral'nogo nauchno-  
issledovatel'skogo instituta svyazi (for Grishko). 2. Nachal'nik  
laboratorii Kiyevskogo otdeleniya TSentral'nogo nauchno-issledo-  
vatel'skogo instituta svyazi (for Sheremet'yev).  
(Telephone)

GRISHKO, N.A.

Transmission level indicator for VUS-12 stations. Vest.svyazi 16 no.8:  
10 Ag '56. (MLRA 9:10)

1. Starshiy mekhanik Kiyevskogo otdeleniya Tsentral'nogo nauchno-issledovatel'skogo instituta svyazi.  
(Telephone lines)

BOLOTUKHIN, V., kand. tekhn. nauk; GRISHKO, N., inzh.; KURSHNEL',  
V., inzh.

Erecting a building of gas-ash-lime-concrete panels with frame  
reinforcement. Zhil. stroi. no.10:23-26 '64. (MIRA 18x4)

PESHKOV, M., inzh.; SILAYENKOV, Ye., kand.tekhn.nauk; DESYATOV, V., :  
arkhitektor; GRISHKO, N., inzh.

Factory finishing of panels made of cellular concretes. Zhil. stroi.  
no.12:11-13 '61. (MIRA 15:2)  
(Facades) (Lightweight concrete)

SILAYENKOV, Ye., inzh.; TIRKO, R., inzh.; GRISHIN, R., inzh.

Finishing panels of exterior walls made of cellular concrete.  
Na stroi. Ros. no. 10:33-34 0 161. (MIRA 14:11)  
(Concrete walls)  
(Lightweight concrete)

GRISHKO, M.M. [Hryshko, M.M.]; SOKOLOVSKIY, O.I. [Sokolovs'kyi, O.I.];  
KHARKEVICH, S.S. [Kharkevych, S.S.]

Establishing a reference herbarium at the Botanical Garden of the  
Academy of Sciences of the Ukrainian S.S.R. composed of plants  
grown in the botanical gardens of the Ukraine. Visnyk Bot.sads  
AN URSR no.1:142-143 '59. (MIRA 13:8)  
(Kiev--Herbaria)

GRISHKO, M.M. [Hryshko, M.M.], akademik

Results of work achieved at the Botanical Garden of the Academy  
of Sciences of the Ukrainian S.S.R. Visnyk Bot.sada AN URSS  
no.1:3-10 '59. (MIRA 13:8)

1. AN USSR.  
(Kiev--Botanical gardens)

DUDIK, Nina Mikhaylovna; GRISHKO, M.M., akademik, otv.red.; NERUSH,  
A.I., red.izd-va; SKLYAROVA, V.Ye. [Skliarova, V.IE.],  
tekhn.red.

[Chrysanthemums for outdoors] Khryzantemy vidkrytoho hruntu.  
Kyiv, Vyd-vo Akad.nauk URSR, 1958. 70 p. (MIRA 13:1)

1. AN USSR (for Grishko).  
(Chrysanthemums)



GRISHKO, M.M.

Michurin methods in the acclimatization of plants. Visnyk AN  
URSR 26 no.10:12-17 no.10:12-17 O '55. (MLRA 9:1)

1. Diysniy chlen Akademii nauk URSR.  
(Acclimatization (Plants))

GRISHKO, M.M.

GRISHKO, M.M.

[Botanical garden of the Ukrainian Academy of Sciences and its  
collections] Botanichnyi sad Akademii nauk Ukrain's'koi RSR i  
ioho kolektsii. Kyiv, Vyd-vo Akademii nauk Ukr. RSR, 1950. 114 p.  
(MLRA 7:8)

(Botanical gardens)

GRISHKO, M.M.

Problems and trends in the work of the Botanical Garden of the  
Academy of Sciences of the Ukrainian S.S.R. Trudy Bot. sada AN  
URSR 1:3-21 '49. (MIRA 10:8)  
(Kiev---Botanical gardens)

GRISHKO, M.D.; KIRICHENKO, F.P.

New cherry varieties in Rostov Province. Kons. i ov. prom. 14  
no.1:32-33 Ja '59. (MIRA 12:1)

1. Batayskiy opornyy punkt.  
(Rostov Province--Cherry--Varieties)

GRISHKO, M.D.  
PEREKISLOV, L.N.; GRISHKO, M.D.

Losses of tomatoes and means for reducing them in enterprises of the  
Rostov Canning Trust. Kons. i ov. prom. 12 no.2:22-26 P '57.  
(MLRA 10:6)

1. Rostovskiy konservnyy trest (for Perekislov). 2. Batayskiy opornyy  
punkt Vsesoyuznogo nauchno-issledovatel'skogo instituta konservnoy i  
ovoshchesushil'noy promyshlennosti.  
(Tomatoes)

NIKITIN, V., master; GRISHKO, M., brigadir slesarey; GORYUNOV, L., slesar';  
YERSHOV, T., slesar'; ZHIGAREV, B., slesar'; KONOVALOV, V.,  
slesar'; LYAPIN, K., slesar'; NOSOV, P., slesar'; TAMANOV, P.,  
mashinist

When will the new acethylene generator be put into production?  
Izobr. i rats. no.10:44 O '58. (MIRA 11:11)  
(Acethylene generators)

~~APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900010-6~~

GRIS: 1

the first two years after the onset of symptoms, and 60% at three years. The authors also found that patients who had been treated with antipsychotics were more likely to have a poor outcome than those who had not.

SOV/153-2-1-21/25

On the High-temperature Treatment of Carbon Black for Rubber Strengthening

of active centers of the chemical interaction of black with rubber decreases, and the specific surface and the adsorptive activity of the black structure with respect to rubber are reduced. K. A. Pechkovskaya and I. N. Duzhanskiy, Tséntral'naya laboratoriya ob"yedineniya "Ukrgas" g. L'vov (Central Laboratory of the Union "Ukrgas" (Ukrainian Gas), L'vov) assisted in the present investigation. There are 3 figures, 5 tables, and 24 references, 15 of which are Soviet.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskii institut; Kafedra tekhnologii reziny i kafedra fiziki (Dnepropetrovsk Institute of Chemical Technology, Chair of Rubber Technology and Chair of Physics)

SUBMITTED: October 15, 1957

Card 3/3



SOV/153-2-1-21/25

## On the High-temperature Treatment of Carbon Black for Rubber Strengthening

thetic rubbers. In this connection it was of special importance to explain the effect exercised by the removal of oxygen and hydrogen upon the strengthening properties. As is known, neither oxygen nor hydrogen can be completely separated from the black structure by temperature rise of up to 1000-1700°C. Table 1 shows the composition of the gas mixtures, the conditions of vulcanization, and experimental results. Electron-microscopic images (Fig 1) indicated variations in black chain-systems due to the effect of high temperatures. In general it was found that the elementary composition of black (Table 2) is changed by heating to high temperatures. Thus, also the specific surface (Table 3) and the adsorptive activity (Table 4) are reduced with respect to rubber. The authors investigated rubber kinds of divinyl-styrene- and chloroprene rubber. Figure 2 shows the X-ray pictures of black after the treatment at 900, 1400, and 1700°C which indicate that the spatial arrangement is improved with increasing temperature. Table 5 shows the structural change of black treated at high temperatures. The physico-mechanical indices of rubber produced from divinyl-styrene rubber with gas black heated up to 1700°C were considerably reduced. The number

Card 2/3

5(1,3)

AUTHORS:

SOV/153-2-1-21/25

Blok, G. A., Grishko, G. S., Podosinnikov, N. N.

TITLE:

On the High-temperature Treatment of Carbon Black for Rubber Strengthening (Vysokotemperaturnaya obrabotka sazhi-usilitelya kauchuka)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 1, pp 114-122 (USSR)

ABSTRACT:

Though the effect of the afore-mentioned carbon black is generally known, its strengthening effect has not yet been fully explained. Recent investigations have demonstrated that some kinds of carbon black cannot be regarded as chemically passive ingredients any longer which do not enter reaction with rubber (Refs 6-8). The structure of carbon black contains such oxygen-containing groups as  $\text{—OH}$ ,  $\text{—COOH}$ ,  $\text{=C=O}$ ,  $\text{HO—C=O}$ , etc. The presence of  $\text{C=C}$  bonds is mentioned. The authors then refer to further publications (Refs 9-19). It was interesting from the practical and theoretical point of view to explain the influence exerted by the active oxygen-containing groups of the black structure upon its strengthening property in mixtures of syn-

Card 1/3

FUDEL'-OSIPOVA, S.I.; GRISHKO, F.Ye.

Characteristics of the electromyogram in voluntary muscular contraction  
in old age. Biul. eksp. biol. i med. 3[1.9.53] no.3:14-19 Mr '62.  
(MI A 15:4)

1. Iz laboratorii biologii (zav. - prof. S.I.Fudel'-Osipova)  
Instituta gerontologii i eksperimental'noy patologii (dir. -  
deystvitel'nyy chlen AMN SSSR N.N.Gorev) AMN SSSR, Kiyev.  
(MUSCLES) (ELECTROMYOGRAPHY)